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Bernard Bene

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EXAMINER

CHRISTIAN, MARJORIE ELLEN

ART UNIT

PAPER NUMBER

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Amendment

1. The amendment filed 8/3/2009 has been entered and fully considered.
2. The rejections under 35 USC 112, 2nd are withdrawn in light of Applicant's amendments.
3. The objection to **claim 5** is withdrawn in light of Applicant's amendments.
4. **Claims 4-17, 20-44, 60-62** are pending and have been fully considered.

Interview Summary & Election/Restriction

5. In an interview with Mr. Parker on 11/3/2009, Applicant indicated that **claims 45-59** were included in error, as they had previously been restricted. For the purposes of examination, **Claims 45-59** are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: see previous restriction/election requirement from 2/11/2009. Since applicant has received an action on the merits for the originally presented invention, **claims 45-59** are withdrawn from consideration as being directed to the non-elected invention.

Oath/Declaration

6. Applicant (Carl Reitz) has not given a post office address in the application papers as required by 37 CFR 1.33(a), which was in effect at the time of filing of the oath or declaration. A statement over applicant's signature providing a complete post office address is required.

Claim Rejections - 35 USC § 102

7. **Claims 4-17, 20-44, 60-62 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,258,027, STERNBY.**

As to **Claims 4-17, 20-36, 60-62**, STERNBY discloses a blood treatment unit (Fig. 1) with a semi-permeable membrane (3) with first and second compartments for blood and treatment liquid (C10/L43-47) and a controller (17). The controller monitors urea concentration downstream of the treatment liquid side (18), which defines the treatment including the clearance value and weight loss (C1/L10-67), and uses the measurements to manipulate and calculate various data parameters (C2/L24-67, C8/L16-42) associated with effective treatments; determines at time intervals the clearance (C12/L54-C13/L47) and effective total dialysis dosage (Claims 12-13). The sensor readings, data collected and data manipulations obtained from the controller are used to control various pumps, flow rates etc. (C9/L30-67 & C10/L59-67).

Claims 4-17, 20-36, 60-61 are drawn to and replete with functional and intended use language that does not structurally differentiate the controller. The controller of STERNBY is implicitly capable of manipulating the data from the sensor readings to determine the progress of the treatment (as shown above) and directing treatment based on sensor readings and data calculations (see claims 26-49 of STERNBY). The equations, data manipulations and data collection at different time intervals in the claims appear to be similar expressions as in the reference, but rearranged and using different notations. In any case, the mathematical expressions for calculating a parameter is not

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a patentable limitation in an apparatus as it does not structurally distinguish the claimed invention from the apparatus of STERNBY.

Additionally, it has been held that apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). “Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

As to **Claims 37, 39**, STERNBY discloses measuring the conductivity of the treatment liquid on conduits downstream (18) of the treatment unit (Ref. 1) with a urea sensor/monitor (18).

As to **Claim 41**, STERNBY discloses that the dialysis machine is operated so that the treatment prescribed for the patient is fulfilled (C11/L10-12), which implies that the dialysis treatment is entered into the computer that controls the dialysis treatment, absent evidence to the contrary.

As to **Claim 42**, STERNBY discloses variable speed pumps that are controlled by the controller (C10/L60-65) the pumps include an ultrafiltration pump (Ref. 11).

As to **Claim 43**, STERNBY discloses the controller is associated with an alert device that activates if concentration curve (which is dependent on time) deviates from a predetermined threshold (Claim 23, 47).

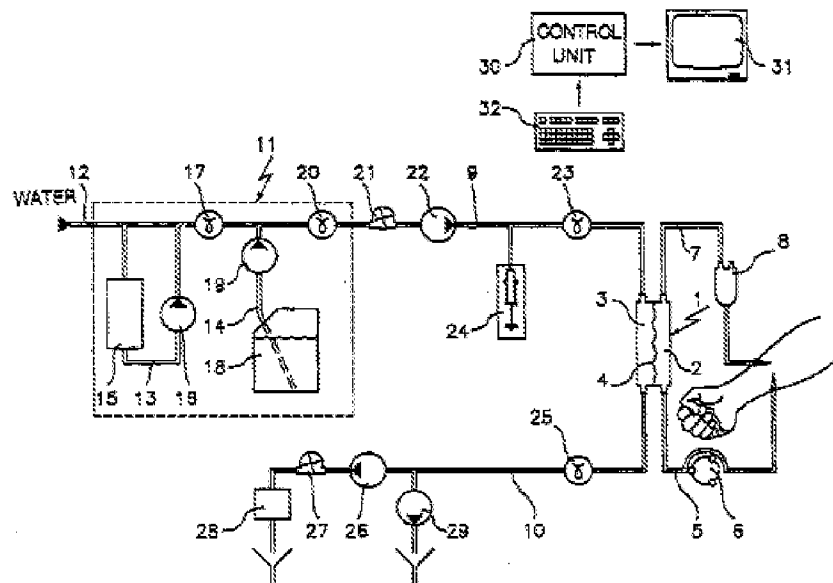
As to **Claim 44**, STERNBY discloses the computer provides various concentration values related to the treatment (C11/L26-33).

8. **Claims 4-17, 20-44, 60-62 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,110,384, GOUX.**

As to **Claims 4-17, 20-36, 60-62**, GOUX discloses a controller for a blood treatment equipment (Abstract) comprising: a treatment unit (Fig. 1) including a semi-permeable membrane (4) separating the unit into a first (2) and second (3) compartment for the circulation of blood and a treatment liquid. The controller receives data, calculates a parameter that indicates the progress of the treatment, compares the calculated parameter with a reference value and generates an output signal responsive to the comparison that controls the operations performed by the equipment (C2/L50-C4/L14, Claims 12-13) *[includes the parameters: clearance, total dialysis dosage and weight loss]* based on conductivity measurements from a sensor (C7/L18-39). The controller apparatus controls and monitors the treatment based on the readings from the sensors and their subsequent data manipulation (C3/L27-40, C5/L31-39) at various time points during the treatment (C12/L48-57), resulting in a treatment that implicitly

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concludes when treatment is complete not when a set period of time has passed (C1/L31-50).



Claims 4-17, 20-36, 60-62 are drawn to and replete with functional and intended use language that does not structurally differentiate the controller. The controller of GOUX is implicitly capable of manipulating the data from the sensor readings to determine the progress of the treatment (as shown above) and directing treatment based on sensor readings and data calculations.

Further, it has been held that apparatus must be distinguished from the prior art in terms of structure rather than function. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Where the claimed and prior art products are

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identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established.

The equations, data manipulations and data collection at different time intervals in the claims appear to be similar expressions as in the reference, but rearranged, and using different notations. In any case, the mathematical expressions for calculating a parameter is not a patentable limitation in an apparatus as it does not structurally distinguish the claimed invention from the apparatus of GOUX.

As to **Claims 37-40**, GOUX discloses measuring the conductivity of the treatment liquid on conduits downstream (25) and upstream (23) of the treatment unit (Ref. 1, C12/L7-18) with a conductivity probes (C5/L29-35).

As to **Claim 41**, GOUX discloses a keyboard for entering pertinent information to the treatment and treatment parameters (Ref. 32, C5/L25-31).

As to **Claim 42**, GOUX discloses variable speed pumps that are controlled by the controller (C5/L32-38) the pumps include an ultrafiltration pump (Ref. 29, C5/L46-62).

As to **Claim 44**, GOUX discloses a monitor connected to a computing and control unit and keyboard (30-32) to display user entered data including blood flow rate, dialysis liquid flow rate, conductivity set values, to set treatment duration and weight loss (C5/L24-31).

Response to Arguments

9. Applicant's arguments filed 8/12/2009 have been fully considered but they are not persuasive in view of the new grounds of rejection necessitated by amendment.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- US Patent No. 6,648,845, GOTCH et al. discloses a controller for a blood treatment unit that measures and manipulates treatments based on sensor readings that indicate progress;
- US Patent No. 5,230,702 LINDSAY et al. discloses a dialysis optimization method and treatment that uses data measurements from a sensor during treatment to calculate various parameters in a controller, where the controller uses the parameters to determine the progress of treatment and manipulate various factors that relate to treatment factors; and
- US Patent No. 5,024,756, STERNBY et al. discloses a dialysis system and method that uses measurements from sensors to control the operations and efficacy of the treatment.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARJORIE CHRISTIAN whose telephone number is (571)270-5544. The examiner can normally be reached on Monday through Thursday 7-5pm (Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571)272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/
Primary Examiner, Art Unit 1797

MC